



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,953	08/02/2001	Molian Deng	38-21(52114)B	9080

27161 7590 04/20/2005

MONSANTO COMPANY  
800 N. LINDBERGH BLVD.  
ATTENTION: G.P. WUELLNER, IP PARALEGAL, (E2NA)  
ST. LOUIS, MO 63167

EXAMINER

MARTINELL, JAMES

ART UNIT PAPER NUMBER

1634

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**MAILED**  
**APR 20 2005**  
**GROUP 1600**

**MAILED**  
**APR 20 2005**  
**GROUP 1600**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/920,953  
Filing Date: August 2, 2001  
Appellant(s): Deng et al

\_\_\_\_\_  
Thomas E. Holsten and David R. Marsh  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed February 1, 2005.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

HL

**(2)     *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. In addition, the USPTO is aware of at least the following applications which may have a bearing on the decision of the Board of Patent Appeals and Interferences. Serial Nos.: 09/966,817; 09/667,188; 09/565,306; 09/552,087; 09/960,481; 09/615,606; 09/552,086; and 09/531,113.

**(3)     *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4)     *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5)     *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6)     *Issues***

The appellant's statement of the issues in the brief is correct.

Art Unit: 1634

**(7)     *Grouping of Claims***

Appellant's brief includes a statement that claims 1-4 and 6-15 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

**(8)     *Claims Appealed***

A substantially correct copy of appealed claims 1-4 and 6-15 appears on pages 17-18 of the Appendix to the appellant's brief. The minor errors are as follows: In claim 4, line 2, "comprises" should be inserted following "molecule".

**(9)     *Prior Art of Record***

No prior art is relied upon by the examiner in the rejection of the claims under appeal.

**(10)    *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims.

Claims 1-4 and 6-15 are rejected under 35 USC § 101 because the claimed invention lacks patentable utility. The instant application does not disclose a specific, substantial, and credible utility for SEQ ID NO: 2 or for any polypeptide that is encoded by SEQ ID NO: 2. Appellants' arguments (Brief, pages 4-14) are not convincing. Appellants argue that SEQ ID NO: 2 may be used in the following ways and that each of these meets the requirement for utility under 35 USC § 101:

- (a)     in the identification of polymorphisms, (Brief, page 5, last full paragraph),

Art Unit: 1634

- (b) to measure the level of or presence of *Chlorella* in a sample (Brief, page 5, last full paragraph and paragraph bridging pages 6-7),
- (c) to measure levels of mRNA (Brief, page 6, first full paragraph),
- (d) as a molecular marker (Brief, page 6, first full paragraph),
- (e) to isolate promoters and transcriptional regulatory elements (Brief, page 6, first full paragraph),
- (f) in cosuppression or antisense expression constructs (Brief, page 6, first full paragraph),
- (g) as probes for other molecules (Brief, page 8, second full paragraph),
- (h) as a source of primers (Brief, page 8, second full paragraph), and
- (i) to find a promoter by doing a chromosome walk starting from the chromosomal locus of SEQ ID NO: 2 (Brief, paragraph bridging pages 8-9).

None of these utilities is specific or substantial. The general assertions in connection with utility can be made for virtually any naturally occurring DNA. Since those DNAs originate in organisms, any such DNA may be used to determine the presence, absence, or level of the organism present in a sample, the presence or absence of polymorphisms, the levels of mRNA, or as probes. (See also, Revised Interim Utility Guidelines Training Materials, <http://www.uspto.gov/web/menu/utility.pdf> at pages 5-8.) Since DNAs are present in chromosomes, any naturally occurring DNA can be used as a starting point for a chromosome walk to discover some other region of DNA that may or may not be useful within the meaning of 35 USC § 101 (*e.g.*, a promoter). Likewise, any DNA may be used as a primer (to produce more of itself) or as a molecular marker or probe (to detect sequences like itself). Without a teaching or disclosure as to the significance of a particular DNA, as compared to any DNA in general, the instant claims do not meet the requirement for patentable utility under 35 USC § 101. The U.S. Supreme Court in *Brenner v. Manson*, Supreme Court of the U.S., 148 USPQ 689 (1966) stated,

"The basic quid pro quo contemplated by the Constitution and the Congress for granting a patent monopoly is the benefit derived by the public from an invention with substantial utility. Unless and until a process is refined and developed to this point – where specific benefit [383 U.S. 519, 535] exists in currently available form – there is insufficient justification for permitting an applicant to engross what may prove to be a broad field."

This is the status of the claimed invention. Applicants also make analogies between the claimed nucleic acids and apparatus inventions (*i.e.*, golf clubs, microscopes, and gas chromatographs). None of these analogies is convincing because: the use of golf clubs is clear – to hit golf balls; the use for microscopes is clear – to magnify images; and the use of gas chromatographs is clear – chemical analysis. In contrast, the use of SEQ ID NO: 2 is not clear, disclosed, readily apparent, well-established, specific, or substantial. The U.S. Supreme Court in *Brenner v. Manson*, Supreme Court of the U.S., 148 USPQ 689 (1966) made it clear that to meet the utility requirement under 35 USC § 101, an invention must be useful in its currently available form.

"This is not to say that we mean to disparage the importance of contributions to the fund of scientific information [383 U.S. 519, 536] short of the invention of something "useful," or that we are blind to the prospect that what now seems without "use" may tomorrow command the grateful attention of the public. But a patent is not a hunting license. It's not a reward for the search, but compensation for its successful conclusion."

The instant application provides only a starting point for the hunt. It does not reach a successful conclusion.

Appellants argue for the separate patentability of claims 6-10 (Brief, pages 10-12) which claims are drawn to transformed cells. Appellants argue that SEQ ID NO: 2 when introduced into cells can be used to follow plants through a breeding program. The arguments hereinabove in connection with a lack of specific utility is incorporated here. Virtually any DNA (providing that its sequence is unique compared

Art Unit: 1634

to sequences that occur naturally within the cells to be transformed) can serve the purpose of genetically tracking transformed cells or their progeny through a "breeding program". Thus, the use of SEQ ID NO: 2 as a marker is not a specific utility.

Claims 1-4 and 6-15 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The discussions under the rejection under 35 USC § 101 is incorporated here. Since the claimed invention lacks utility under 35 USC § 101, the instant application does not teach how to use the invention.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

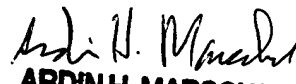
James Martinell  
Primary Examiner  
Art Unit 1634

  
4/13/05

April 12, 2005

  
W. Gary Jones  
Supervisory Patent Examiner  
Technology Center 1600

Conferees

  
4/15/05  
ARDIN H. MARSCHEL  
SUPERVISORY PATENT EXAMINER